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Attitude Study on Performance Evaluation

*Hirohide Hinomoto*

College of Commerce and Business Administration  
Bureau of Economic and Business Research  
University of Illinois, Urbana-Champaign



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Hirohide Hinomoto, Professor  
Department of Business Administration





## Attitude Study on Performance Evaluation

### Abstract

Seventy-five clerks in the customer order processing group at a gas utility were asked to rate the importance of eight factors used for performance evaluation. They have been divided to two groups by age and sex. The difference between the average ratings given by the two groups in each category has been tested for statistical significance. Factors "hard work," "length of service," and "no absence" have produced a significant difference between the younger (35 or less in age) and older groups. Factors "skill in processing calls" and "number of processed calls" have produced a significant difference between the male and female groups.



## Attitude Study on Performance Evaluation

### Review of Literature

An essential activity of management is the evaluation of the performance of its employees. On the basis of such evaluations, management promotes, transfers, demotes, fires, and trains the employees (Barrett, 1966). Research studies concerning the issue of employee evaluation may be divided to two groups; the first group is concerned with the development of formal evaluation instruments and their susceptibility to both random and systematic errors, and the second group is concerned with attribution and stereotyping processes and their influence on evaluation (Feldman, 1981). Earlier, a number of case studies have been reported on the blue-collar workers' perception of how their pay is determined by their job performance (see, e.g., Whyte, 1955). Brayfield and Crockett (1955) have concluded that while these studies indicate the existence of a minimal or no relationship between employee job satisfaction and performance, they seem to indicate the existence of a positive relationship between group norm and individual performance. Vroom (1964) has developed a motivational model that stresses the importance of considering the worker's perception of the relationship between pay and performance. In a study investigating 563 managers, Lawler (1966) has found that managers' perceptions of how their pay is determined generally reflect the way their pay is actually determined, but that the way their pay is determined does not seem to influence strongly their attitudes toward how their pay should be determined. Later, Lawler (1971) has concluded by reviewing

existing studies that overall, blue-collar workers are less favorably disposed toward merit pay plans than are managers. Latham (1977) has developed behavioral observation scales by factor analyzing observation ratings regarding the job success of logging supervisors and used the scales to appraise the performance of the supervisors.

A number of researchers have investigated the industrial use of performance appraisal techniques. Whisler and Harper (1962) have presented the data indicating a decreasing trend on the use of such techniques on rank-and-file employees but an increasing trend on management personnel, and concluded that these trends are based on management's growing conviction that managers can be improved and developed while operating level employees cannot be. Brown and Larson (1958) and Spriegel (1962) have emphasized that the purposes of appraisal are for development of both the employee and the supervisor, rather than for determination of rewards. However, Campbell et al. (1970) have argued that Spriegel's data clearly show that organizations still use appraisals for the traditional uses such as promotion, discharge, and salary decisions.

A number of studies have been concerned with the relationships between sex and job outcomes. Job outcomes are divided to extrinsic and intrinsic outcomes. The extrinsic outcomes are job context outcomes such as performance, promotion, pleasant working conditions, recognition for good work and pay, whereas the intrinsic outcomes are job content factors such as a perception of variety, challenge, responsibility, and participation (Schuler, 1975). Earlier, Herzberg et al.

(1957) have reported that males rate the importance of intrinsic outcomes higher than do females. Burke (1966 a,b) has found that male and female college students give equal ranks to intrinsic outcomes and consider intrinsic outcomes generally more important than extrinsic outcomes. Centers and Bugental (1966) have generally supported Burke's findings, on the basis of a large cross sectional sample of the work force. Consistent with Centers and Bugental's results, Saleh and Lalljee (1969), Manhardt (1972), Bartol (1974), and Schuler (1975) have found that females give more importance to the opportunity to work with pleasant employees than do males, and males value the opportunity to influence important decisions or to earn money more than females.

In a study covering managers in a department store and administrators in four school districts, Miner (1974) has found no consistent differences between the male and the female in managerial motivation. Brief and Aldag (1975) have found that sex differences in occupation attitudes regularly found in past studies of whites are not evident in two samples of poor minority groups. Other studies concerned with effects of sex on performance ratings have been reported by Pheterson, Kiesler, and Goldberg (1971), Shaw (1972), Deaux and Taynor (1973), Rosen and Jerdee (1973, 1974), and Bigoness (1976). All these researchers have studied the evaluator's bias in assessing the performances of male and female personnel.

Unlike the effects of sex on job outcomes, the effects of age on job outcomes have attracted much less attention from researchers. In one rare study on this topic, Schuler (1975) has found that age has no

significant influence on the total ranking of job outcomes, but that the older employees place more value on the chance to direct the work of others than did the younger employees.

The present study reports the result of a questionnaire survey asking clerks in the customer relations department of a gas utility about their opinions on factors used in management's evaluation of their performance. This utility served a million families in a large metropolitan area (Hinomoto, 1979). On a typical day, these clerks received from customers about 8,000 telephone calls regarding emergency orders due to gas leaks or poor supplies, regular orders for meter turn-ons or turn-offs, inquiries on monthly bills, and other types of requests and inquiries. They processed customer orders and inquiries by entering necessary data into an on-line terminal. Of the 80 clerks in the work force, seventy-five were present on the job and available for the study. They consisted of 40 females and 35 males, and 47 belonging to the younger group of 35 or less in age and 28 belonging to the older group of 36 or over in age.

The questionnaire asked clerks to evaluate the importance of each of the following eight factors according to their judgment on how their work performance should be evaluated by management: (a) care taken in processing customers' calls, (b) skill in processing calls, (c) hard work, (d) number of calls processed, (e) presence at the desk, (f) length of service, (g) prompt return from a break, and (h) no absence. Factors such as (a), (b), and (d) were applicable to customer order processing at utility companies in general, whereas factors such as (e) and (g) were peculiar to the work environment of



this utility. For example, "presence at the desk" was meaningful because some clerks in the department frequently left their work stations to engage in private conversation with their colleagues. The factor "prompt return from a break" was included in the questionnaire, because some clerks were not prompt in returning to their work stations after an official 15-minute coffee break in the morning or in the afternoon, or a 45-minute lunch break. Absenteeism in the customer relations department was between 5% and 10% of the work force of 80 clerks on a typical day. "Length of service," though not considered a factor related to job performance, was included to find the clerk's perception of its importance relative to other factors in promotion evaluation.

#### Method

The clerk was asked to evaluate the importance of each of the eight factors by selecting one of the following five ratings: 1(very high), 2(high), 3(mediaum), 4(low), and 5(very low). From the ratings given by the respondents to each question, the average scores and frequency distributions of the two sex groups, the two age groups, and the entire group have been computed and listed in Table 1. The resulting average ratings of the eight factors indicate that the respondents have evaluated the importance of these factors in the sequence listed in Table 1 with "care taken in processing customer's calls" at the top in the list and "no absence" at the bottom. Table 1 also lists the result of a 2-tail test of the hypothesis based on t statistic that the average ratings of the two sex or age groups are identical. If the t statistic is greater than 1.65, the difference is considered significant at a

confidence level of 0.1. A brief discussion on the results of each factor follows.

Care taken in processing calls: Management of this utility emphasized careful treatment of customers much more than management of regular business firms. It might be the reflection of this emphasis that the clerks gave the highest average rating to "care taken in processing customers' calls." Fifty-eight or 80% of the 73 employees evaluating this question considered the factor very high in importance in evaluating their performance. Each of the four groups gave this factor the highest of the average scores of all factors. The difference in average rating between the two sex groups is much smaller than that difference between the two age groups. But neither difference is significant at a confidence level of 0.1.

Skill in processing calls: Ability and skill are very closely related. Skill may represent ability in a specific job context. A few studies on the effects of ability on performance are cited here. Vroom (1964) has argued that the effects of ability and motivation on performance are interactive and their relationship resembles a multiplicative form depicted as follows:  $Performance = f(Ability \times Motivation)$ . Cummings and Schwab (1973) have defined ability as individuals' current capacities to perform some task or set of tasks. They have stated further that ability reflects capability, a relatively stable characteristic enabling persons to behave in some specified fashion, whereas motivation reflects effort or energy, a dynamic, often fleeting characteristic which determines how vigorously capabilities will be employed in some activity.

Of the 69 respondents who have evaluated "skill in processing calls," forty-two or 69% of them have given the highest rating to "this factor." This and the previous factors are the only factors that have been given the highest rating by the majority of the respondents. There is an interesting contrast between the ways the two sex groups and the two age groups have rated this factor. In a two-tail test, the difference in average rating between the two sex groups is statistically quite significant at a confidence level of 0.1, while that difference between the two age groups is not significant at all at this level.

Hard work: Hard work, morale, and motivation are closely related terms that have been investigated in many of the research studies previously cited. Two other studies are introduced here. Earlier, Maslow (1954) has pointed out that an important aspect of motivation is that we yearn consciously for the attainment that may be actually realizable. Vroom (1964) has concluded that workers' choices among different levels of effort expenditure on their jobs are predicted to be the result of both their preferences among performance outcomes and their expectancies concerning the consequences of each level of effort on the attainment of these outcomes.

The average rating given to the factor "hard work" by each of the four groups is between 2 to 2.5, meaning that the respondents considered this factor to be more than moderately high in importance in evaluating their performance. The difference in average rating between the two sex groups is insignificant at a confidence level of 0.1, but the difference between the two age groups is significant at this level of confidence. Proportionally more respondents in the younger group

have given the "high" or "very high" rating to this factor than respondents in the older group have. It is noteworthy that this relationship between the two age groups is inverse to that relationship for "care taken in processing calls."

Number of processed calls: The respondents have clearly differentiated "number of processed calls" from "hard work." On the one hand, the average ratings of "number of processed calls" given by the two sex groups are significantly different at a confidence level of 0.1 in a two-tail test while such a difference does not exist with "hard work." On the other hand, the two age groups have given the average ratings to "number of processed calls" that are not significantly different and the average ratings to "hard work" that are significantly different.

Presence at the desk: This is the only factor for which all four groups have been in full agreement; they have given virtually identical average ratings, being exactly or almost equal to 3. As a result, the difference between the average ratings given by any two groups is statistically insignificant.

Length of service: It may be appreciated that only the older group has given an average rating higher than "low" in importance to "length of service" while all other groups have given an average rating lower than that rating. The difference in average rating between the female and male groups is insignificant at a confidence level of 0.1, but that difference between the two age groups is significant,

reflecting the clearly different attitudes of these groups toward this factor.

Prompt to work: One of a few studies related to this factor has been reported by Giese (1949). He has analyzed data on employees of various departments of a mail-order house to determine the relationships between productivity and such factors as error efficiency not affecting customers, error efficiency affecting customers, turnover rate, tardiness to work, and absenteeism. He has found a very similar, negative relationship between turnover (-.18), tardiness to work (-.18), or absenteeism (-.15) and productivity.

This utility invested a large sum of money in the hardware and software of the on-line system. As a result, the management of the customer relations department wanted to see an efficient use of the system by enforcing a rule for clerks to return promptly to their work stations after a coffee or lunch break. This practice, however, turned out to be unpopular among the clerks who thought their freedom was deprived by the management's close control. All four groups have given an average rating less than "low" in importance to "prompt to work," perhaps to express their feeling against the practice.

No absence: The relationships between absenteeism and job outcomes have been investigated by many researchers. Earlier, Kerr et al. (1951) have conducted a study at two electronics factories to find the relationships between job satisfaction and various types of absenteeism including total absenteeism, excused absenteeism, unexcused



absenteeism, vacation absenteeism, proportion of the unexcused absenteeism due to stated illness only, and proportion of total absenteeism which is unexcused. They have found no consistent relationships between job satisfaction and the different types of absenteeism. Yoder et al. (1951) have studied five groups of employees including office employees, department store personnel, and factory employees, but found no statistically significant relationships between the attitude index and absences in these groups. Metzner and Mann (1953) have studied relationships between absences and various attitudinal measures toward some aspect of the work situation among white-collar women, white-collar men, or mixed men and women in a high- or low-skill group.

Reviewing earlier studies on the relationship between job satisfaction and absences, Vroom (1964) has concluded that these studies have not produced consistent results. Morgan and Herman (1976, p. 741) have observed that organizational policies regarding absenteeism are known to employees regardless of their absenteeism record and these policies do not act as deterrents to absenteeism.

Of the eight factors included in the present study, "no absence" has received the lowest average rating given by each of the four groups. The difference in average rating between the female and male groups is insignificant at a confidence level of 0.1 but that difference between the two age groups is significant with the older group deemphasizing the importance of this factor in evaluating their performance than the younger group. On the one hand, the younger group has considered both "length of service" and "no absence" unimportant



in evaluating their performance. On the other hand, the older group has considered "length of service" an important factor with an average score of 2.78 while in radical contrast it has considered "no absence" unimportant by giving an average score of 4.45.

### Conclusion

The average ratings of the eight factors being evaluated by the order processing clerks are listed in the sequence of importance, with the value in parentheses showing the average rating:

1. Care taken in processing calls (1.42)
2. Skill in processing calls (1.62)
3. Hard work (2.14)
4. Number of calls processed (2.82)
5. Presence at work station (3.03)
6. Length of service (3.17)
7. Prompt return to work station after a break (3.34)
8. No absence from work (4.14)

The difference between the average ratings given by the two groups in sex or age classification has been computed and tested its statistical significance at a confidence level of 0.1 in a two-tail test. There has been a significant difference between the female and male groups on two factors, "skill in processing calls" and "number of processed calls." On the other hand, only the following three factors have shown a significant difference in average rating between the younger and older groups: "hard work," "length of service," and "no absence."

The performance evaluation of the sales order processing clerk might be relatively easier than the performance evaluation of other jobs at this utility. Yet, it is not at all clear how we should measure "care taken in processing call" or "skill in processing calls." Some clerks might interpret a longer time spent with a customer to mean better care given to the customer while other clerks might say that a shorter time spent with a customer represent better skill in processing the call. Although "hard work" resembles "number of processed calls," it is also a qualitative factor. Clerk X might curtly process a larger number of calls, while clerk Y might spend more time per call with care and process a smaller number of calls than the former. In this situation, their colleagues might consider clerk Y to be a harder worker than clerk X.

Of the eight factors, one considered most important by the largest majority of the respondents has been "care taken in processing customers' calls." Qualitative factors such as this make performance evaluation in office environment extremely difficult. Even among organizations of the same type, employees of different organizations might rate the same qualitative factor quite differently because of the peculiarity of organizational tradition, management's policies, supervisors' attitudes, work environment, or group norm.

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Table 1

Importance Ratings of Factors  
Used for Performance Evaluation

|                                |         | Importance Rating* |    |    |   |    |       | t Statistic for Hypothesis: |   |
|--------------------------------|---------|--------------------|----|----|---|----|-------|-----------------------------|---|
| Factor                         | Group   | 1                  | 2  | 3  | 4 | 5  | Total | Average Rating              | (1) $\mu_f = \mu_m$ , or<br>(2) $\mu_y = \mu_0$ |
| Care taken in processing calls | Female  | 31                 | 2  | 2  | 2 | 1  | 38    | $\mu_f = 1.42$              | (1) $t = 0.033$                                 |
|                                | Male    | 27                 | 4  | 2  | 1 | 1  | 35    | $\mu_m = 1.43$              | Pr. = 0.974                                     |
|                                | Younger | 33                 | 5  | 3  | 2 | 2  | 45    | $\mu_y = 1.56$              | (2) $t = 1.472$                                 |
|                                | Older   | 25                 | 1  | 1  | 1 | 0  | 28    | $\mu_0 = 1.21$              | Pr. = .145                                      |
|                                | Both    | 58                 | 6  | 4  | 3 | 2  | 73    | $\mu = 1.42$                |   |
| Skill in processing calls      | Female  | 25                 | 8  | 2  | 1 | 0  | 36    | $\mu_f = 1.42$              | (1) $t = 1.943$                                 |
|                                | Male    | 17                 | 8  | 5  | 2 | 1  | 33    | $\mu_m = 1.85$              | Pr. = 0.056                                     |
|                                | Younger | 26                 | 11 | 3  | 2 | 1  | 43    | $\mu_y = 1.63$              | (2) $t = 0.053$                                 |
|                                | Older   | 16                 | 5  | 4  | 1 | 0  | 26    | $\mu_0 = 1.62$              | Pr. = 0.958                                     |
|                                | Both    | 42                 | 16 | 7  | 3 | 1  | 69    | $\mu = 1.62$                |   |
| Hard work                      | Female  | 7                  | 16 | 4  | 2 | 2  | 31    | $\mu_f = 2.22$              | (1) $t = 0.646$                                 |
|                                | Male    | 9                  | 15 | 5  | 3 | 0  | 32    | $\mu_m = 2.06$              | Pr. = 0.520                                     |
|                                | Younger | 13                 | 21 | 4  | 2 | 1  | 41    | $\mu_y = 1.95$              | (2) $t = 2.141$                                 |
|                                | Older   | 3                  | 10 | 5  | 3 | 1  | 22    | $\mu_0 = 2.50$              | Pr. = 0.036                                     |
|                                | Both    | 16                 | 31 | 9  | 5 | 2  | 63    | $\mu = 2.14$                |   |
| Number of calls                | Female  | 2                  | 21 | 8  | 1 | 4  | 36    | $\mu_f = 2.55$              | (1) $t = 1.920$                                 |
|                                | Male    | 3                  | 11 | 5  | 5 | 8  | 32    | $\mu_m = 3.12$              | Pr. = 0.059                                     |
|                                | Younger | 4                  | 19 | 8  | 6 | 7  | 44    | $\mu_y = 2.84$              | (2) $t = 0.155$                                 |
|                                | Older   | 1                  | 13 | 5  | 0 | 5  | 24    | $\mu_0 = 2.79$              | Pr. = 0.878                                     |
|                                | Both    | 5                  | 32 | 13 | 6 | 12 | 68    | $\mu = 2.82$                |   |

\*1=very high, 2=high, 3=medium, 4=low, and 5=very low.

Table 1 (continued)

|                               |         |   |    |    |    |    |    |                |                 |
|-------------------------------|---------|---|----|----|----|----|----|----------------|-----------------|
| Presence<br>at<br>the<br>desk | Female  | 1 | 9  | 15 | 4  | 4  | 33 | $\mu_f = 3.03$ | (1) $t = 0.000$ |
|                               | Male    | 0 | 12 | 12 | 5  | 4  | 33 | $\mu_m = 3.03$ | Pr. = 0.000     |
|                               | Younger | 1 | 13 | 16 | 7  | 5  | 42 | $\mu_y = 3.05$ | (2) $t = 0.183$ |
|                               | Older   | 0 | 8  | 11 | 2  | 3  | 24 | $\mu_o = 3.00$ | Pr. = 0.855     |
|                               | Both    | 1 | 21 | 27 | 9  | 8  | 66 | $\mu = 3.03$   |                 |
| Length<br>of<br>service       | Female  | 2 | 5  | 11 | 5  | 3  | 26 | $\mu_f = 3.07$ | (1) $t = 0.491$ |
|                               | Male    | 5 | 3  | 8  | 4  | 8  | 28 | $\mu_m = 3.25$ | Pr. = 0.626     |
|                               | Younger | 2 | 3  | 12 | 7  | 7  | 31 | $\mu_y = 3.45$ | (2) $t = 1.941$ |
|                               | Older   | 5 | 5  | 7  | 2  | 4  | 23 | $\mu_o = 2.78$ | Pr. = 0.058     |
|                               | Both    | 7 | 8  | 19 | 9  | 11 | 54 | $\mu = 3.17$   |                 |
| Prompt<br>to<br>work          | Female  | 1 | 5  | 10 | 9  | 4  | 29 | $\mu_f = 3.34$ | (1) $t = 0.000$ |
|                               | Male    | 2 | 5  | 6  | 13 | 3  | 29 | $\mu_m = 3.34$ | Pr. = 0.000     |
|                               | Younger | 1 | 6  | 10 | 15 | 5  | 37 | $\mu_y = 3.46$ | (2) $t = 1.086$ |
|                               | Older   | 2 | 4  | 6  | 7  | 2  | 21 | $\mu_o = 3.14$ | Pr. = 0.282     |
|                               | Both    | 3 | 10 | 16 | 22 | 7  | 58 | $\mu = 3.34$   |                 |
| No<br>absence                 | Female  | 1 | 1  | 1  | 7  | 13 | 23 | $\mu_f = 4.30$ | (1) $t = 0.985$ |
|                               | Male    | 1 | 1  | 7  | 6  | 12 | 27 | $\mu_m = 4.00$ | Pr. = 0.329     |
|                               | Younger | 2 | 1  | 7  | 7  | 13 | 30 | $\mu_y = 3.93$ | (2) $t = 1.675$ |
|                               | Older   | 0 | 1  | 1  | 6  | 12 | 20 | $\mu_o = 4.45$ | Pr. = 0.100     |
|                               | Both    | 2 | 2  | 8  | 13 | 25 | 50 | $\mu = 4.14$   |                 |











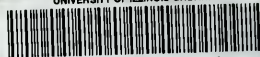
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